

ABSTRACT

The object of the invention is to provide optical apparatuses using the near-field light where high spatial resolution and high sensitivity are made compatible. Highly intense near-field light is generated in a narrow area using localized plasmons that are produced in a metal pattern 106 in the shape that bears anisotropy and is made to irradiate a measured subject. The direction of polarization 104 of incident light 103 is modulated and signal light is subjected to synchronous detection, so that background light is removed and high sensitivity is achieved.

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